



ELECTRICAL CURRENTS

Newsletter from the Office of the Chief Electrical Inspector

Ron Fuller, Chief Electrical Inspector

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● Listed EMT Compression Fittings Marked “Raintight”

In March of 2003 Underwriters Laboratories (UL) initiated more stringent UL follow-up requirements for manufacturers listing EMT “raintight” fittings. UL says they want to ensure the fittings consistently maintain their rain-tight integrity. As of April 2003, UL authorized no “raintight” EMT listings.

Electrical manufacturers may use **any approved laboratory** to list their product. Any existing listed EMT fitting identified as “raintight” by a properly accredited Washington testing laboratory is acceptable. The laboratory’s label is typically on the smallest unit of packaging. It is the installer’s responsibility to provide evidence that the fittings they use are approved for the environment in which they are installed.

● Electrical License/Certification & Listing Requirements For Sign Work

We have received requests from our inspectors and contractors for additional clarification on this subject. This article supplements the Electrical Currents August 2002 article titled “Multi-Jurisdictional Equipment?” All previous issues are available at: www.lni.wa.gov/scs/electrical/elc.htm. Other information is also in the scope of work for the (04)-Signs specialty [WAC 296-46B-920(2)(d)].

WAC 296-46B-925(8) says, “*Firms who clean and/or replace lamps in luminaires are not included in the requirements for licensing in chapter 19.28 RCW. This exemption does not apply to electric signs as defined in the NEC.*” Electric signs are **not** luminaires. Electrical contractor licensing and electrician certification is required to replace/clean lamps in electric signs and to engage in the business of changing sign faces in the field, even though the department will not require a permit/inspection for the work.

Electrical licensing/certification is not required while engaging in the business of painting electrical signs or installing a new vinyl sign overlay in the field provided that the sign face does not have to be removed. In the event the sign face is removed, electrical licensing/certification is required. Generally speaking, any time a sign face is required to be opened for maintenance/repair, the firm must be a licensed electrical (01 or 04) contractor and the worker must be a certified electrician (01 or 04). Some plug and cord connected signs may be exempt for the requirements for licensing/certification (see WAC 296-46B-925(9) for details).

All electrical signs must be listed (see WAC 296-46B-600(1) and (7) for details).

● Electrical Contractors—Subcontracting Electrical And Other Work

Electrical contractors can only subcontract to other electrical contractors. If the electrical contractor needs to **perform or subcontract the work of any other non-electrical trade**, the electrical contractor must also be a registered general or specialty contractor who meets the requirements of chapter 18.27 RCW.

Electrical contractors who need to perform or subcontract work that is non-electrical should see chapter 18.27 RCW for the general contractor registration requirements. The website for the Contractor Registration Section is: www.lni.wa.gov/scs/contractors/howto.htm.

● Publication Of Chapter 19.28 RCW—Electricians and Electrical Installations

Most of the changes in RCW 19.28 made in the 2003 legislative session were effective July 27, 2003. Many of these changes will be implemented immediately while others will need to complete the 2003-2004 WAC revision cycle to allow the department and our stakeholders to establish practical procedures and processes for enforcement. We will not be able to print the changes to the statute from the four successful bills (SHB 1848, ESSB 5713, ESB 5210, and SSB 5434) until the Office of the Code

Reviser completes work on chapter 19.28 RCW. Copies of these bills are available on the Code Reviser's Web site at: <http://slc.leg.wa.gov/>. Our estimate of a publication date is late September-October.

● “Open-Window” Opportunities For Specific Specialty Electrician Certification

Individuals with previous appropriate electrical experience may apply their experience towards qualifying for specific specialty electrician examination. The following specialties will be in the “open-window” opportunity:

Revised 03A-Domestic Well

07B-Residential Maintenance

Revised 06A-HVAC/refrigeration system

NEW 07C-Restricted Nonresidential Maintenance

NEW 06B-HVAC/refrigeration system-Restricted

NEW 07D-Appliance Repair

07-Nonresidential Maintenance

NEW 07E-Equipment Repair

07A-Nonresidential Lighting Maintenance

10-Door, Gate, and Similar Systems

Individuals with prior experience in one or more of the areas of electrical maintenance or installation above should review details of their scope(s) of work to ensure that they are making the best choice(s) about the applicability of their experience. Candidates for these electrical exams should note that all electricians are examined on the entire scope of work they are allowed to do, not just the specific experience they may have. Scope of work details are in WAC 296-46B-920 available at all L&I field offices and online at: www.lni.wa.gov/scs/electrical/29646B.pdf.

● Reference Materials For Electrical Exams—Electrical Code, State Laws & Rules

Our electrical exams (administrator, journeyman and specialty electrician) will remain based on the 1999 NEC and the July 2001 printing of RCW 19.28, WAC 296-46A, and WAC 296-401B until we print the latest version of the statute (estimated late September-October). **Do not use the currently effective 2002 National Electrical Code or the April 2003 (red cover) printing of WAC 296-46B as reference material until the exams are upgraded. There will be a notification in the Electrical Currents, electrical listserver and electrical website prior to implementing the new exams.**

● 2003-2004 WAC Revision Process Update

The deadline for submitting WAC revision proposals was July 21, 2003. No further proposals for this cycle will be accepted for Technical Advisory Committee (TAC) consideration. The TAC will review the proposals in Tumwater on August 26, 2003. The proposed revisions are now available for public review at: www.lni.wa.gov/scs/electrical/2003-2004wac/03-04wac.htm.

● Arc-Fault Protected Circuits In Studio Apartments

2003 NEC 210.12 requires: “All branch circuits supplying ... 15/20-amp outlets in dwelling bedrooms to be protected by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit.” The dictionary defines “bedroom” as “a room intended for sleeping.” A studio apartment is a “dwelling unit” (i.e. It has space intended for living and sleeping, and permanent provisions for cooking and sanitation). In a studio sleeping area, outlet circuits must meet the requirement for arc-fault circuit-interrupter protection. This requirement does not extend to rooms in one/two/multifamily dwellings such as living rooms or recreation rooms that are not primarily designed for use as a sleeping room.

● Electrical Question Of The Month

This Month's Question: When the opening to an outlet, junction, or switch point is less than 8 inches in any dimension, each conductor shall be long enough to extend at least _____ outside the opening of the enclosure. A) 3 inches, B) 4 inches, C) 6 inches, D) 8 inches.

Last Month's Question: A bare #4 copper conductor installed near the bottom of a concrete foundation or footing that is in direct contact with the earth may be used as a grounding electrode when the conductor is at least _____ ft in length. A) 25, B) 10, C) 15, D) 20. The answer is: **D)** [NEC 250.52(A)(3)]